

**199—45.9 (476) Level 2 expedited review.** A utility shall use the Level 2 review procedure for interconnection requests that meet the Level 2 criteria in subrule 45.7(2). A utility may not impose additional requirements for Level 2 reviews that are not specifically authorized under this rule or rule 199—45.3(476) or subrule 45.5(9) unless the applicant agrees.

**45.9(1)** The utility shall evaluate the potential for adverse system impacts using the following screens, which shall be satisfied:

*a.* For interconnection of a proposed distributed generation facility to a radial distribution circuit, the total distributed generation connected to the distribution circuit, including the proposed distributed generation facility, may not exceed 15 percent of the maximum normal load normally supplied by the distribution circuit.

*b.* For interconnection of a proposed distributed generation facility within a spot network, the proposed distributed generation facility must be inverter-based and use a minimum import relay or other protective scheme that will ensure that power imported from the utility to the network will, during normal utility operations, remain above 1 percent of the network's maximum load over the past year, or will remain above a point reasonably set by the utility in good faith. At the utility's discretion, the requirement for minimum import relays or other protective schemes may be waived and alternative screening criteria may be applied.

*c.* The proposed distributed generation facility, in aggregation with other generation on the distribution circuit, may not contribute more than 10 percent to the distribution circuit's maximum fault current at the point on the primary line nearest the point of interconnection.

*d.* Any proposed distributed generation facility, in aggregate with other generation on the distribution circuit, shall not cause any electric utility distribution devices to be exposed to fault currents exceeding 90 percent of their short-circuit interrupting capability. Interconnection of a non-inverter-based distributed generation facility may not occur under Level 2 if equipment on the utility's distribution circuit is already exposed to fault currents of between 90 and 100 percent of the utility's equipment short-circuit interrupting capability. However, if fault currents exceed 100 percent of the utility's equipment short-circuit interrupting capability even without the distributed generation being interconnected, the utility shall replace the equipment at its own expense, and interconnection may proceed under Level 2.

*e.* When a customer-generator facility is to be connected to 3-phase, 3-wire primary utility distribution lines, a 3-phase or single-phase generator shall be connected phase-to-phase.

*f.* When a customer-generator facility is to be connected to 3-phase, 4-wire primary utility distribution lines, a 3-phase or single-phase generator shall be connected line-to-neutral and shall be grounded.

*g.* When the proposed distributed generation facility is to be interconnected on a single-phase shared secondary line, the aggregate generation capacity on the shared secondary line, including the proposed distributed generation facility, may not exceed 20 kVA.

*h.* When a proposed distributed generation facility is single-phase and is to be interconnected on a center tap neutral of a 240-volt service, its addition may not create an imbalance between the two sides of the 240-volt service of more than 20 percent of the nameplate rating of the service transformer.

*i.* A distributed generation facility, in aggregate with other generation interconnected to the distribution side of a substation transformer feeding the circuit where the distributed generation facility proposes to interconnect, may not exceed 10 MVA in an area where there are transient stability limitations to generating units located in the general electrical vicinity, as publicly posted by the Midwest Reliability Organization (MRO), the SERC Reliability Corporation (SERC), the Midcontinent Independent System Operator, Inc. (MISO) or the Southwest Power Pool (SPP).

*j.* Except as permitted by additional review in subrule 45.9(6), the utility shall not be required to construct any facilities on its own system to accommodate the distributed generation facility's interconnection.

**45.9(2)** The Level 2 interconnection shall use the following procedures:

*a.* The applicant submits an interconnection request using the Levels 2 to 4 Interconnection Request Application form along with the Level 2 application fee.

*b.* Within ten business days after receiving the interconnection request, the utility shall inform the applicant as to whether the interconnection request is complete. If the request is incomplete, the utility shall specify what materials are missing and the applicant has ten business days to provide the missing information or the interconnection request shall be deemed withdrawn.

*c.* After an interconnection request is deemed complete, the utility shall assign a review order position based upon the date that the interconnection request is determined to be complete. The utility shall then inform the applicant of its review order position.

*d.* If, after determining that the interconnection request is complete, the utility determines that it needs additional information to evaluate the distributed generation facility's adverse system impact, it shall request this information. The utility may not restart the review process or alter the applicant's review order position because it requires the additional information. The utility can extend the time to finish its evaluation only to the extent of the delay required for receipt of the additional information. If the additional information is not provided by the applicant within 15 business days, the interconnection request shall be deemed withdrawn.

*e.* Within 20 business days after the utility notifies the applicant it has received a completed interconnection request, the utility shall:

(1) Evaluate the interconnection request using the Level 2 screening criteria; and

(2) Provide the applicant with the utility's evaluation, including a written technical explanation. If a utility does not have a record of receipt of the interconnection request and the applicant can demonstrate that the original interconnection request was delivered, the utility shall complete the evaluation of the interconnection request within 20 business days after applicant's demonstration.

**45.9(3)** When a utility determines that the interconnection request passes the Level 2 screening criteria, or the utility determines that the distributed generation facility can be interconnected safely and will not cause adverse system impacts, even if the facility fails one or more of the Level 2 screening criteria, the utility shall provide the applicant with the Levels 2 to 4 Distributed Generation Interconnection Agreement within three business days of the date the utility makes its determination.

**45.9(4)** Within 30 business days after issuance by the utility of the Levels 2 to 4 Distributed Generation Interconnection Agreement, the applicant shall sign and return the agreement to the utility. If the applicant does not sign and return the agreement within 30 business days, the interconnection request shall be deemed withdrawn unless the applicant requests a 15-business-day extension in writing before the end of the 30-day period. The initial request for extension may not be denied by the utility. When the utility conducts an additional review under the provisions of subrule 45.9(6), the interconnection of the distributed generation facility shall proceed according to milestones agreed to by the parties in the Levels 2 to 4 Distributed Generation Interconnection Agreement.

**45.9(5)** The Levels 2 to 4 Distributed Generation Interconnection Agreement is not final until:

*a.* All requirements in the agreement are satisfied;

*b.* The distributed generation facility is approved by the electric code officials with jurisdiction over the interconnection;

*c.* The applicant provides the Certificate of Completion form to the utility. Completion of local inspections may be designated on inspection forms used by local inspecting authorities; and

*d.* The witness test has either been successfully completed or waived by the utility in accordance with Article 2.1.1 of the Levels 2 to 4 Distributed Generation Interconnection Agreement.

**45.9(6)** Supplemental review may be appropriate when a distributed generation facility fails to meet one or more of the Level 2 screens. The utility shall offer to perform a supplemental review to determine whether there are minor modifications to the distributed generation facility or electric distribution system that would enable the interconnection to be made safely without causing adverse system impacts. To accept the offer of a supplemental review, the applicant shall agree in writing and submit a deposit for the

estimated costs of the supplemental review in the amount of the utility's good-faith nonbinding estimate of the costs for such review, both within 15 business days of the offer. If the written agreement and deposit have not been received by the utility within that time frame, the interconnection request shall continue to be evaluated under the applicable study process unless it is withdrawn by the applicant.

*a.* The applicant may specify the order in which the utility will complete the screens described in paragraph 45.9(6) "d."

*b.* The applicant shall be responsible for the utility's actual costs for conducting the supplemental review. The applicant must pay any review costs that exceed the deposit within 20 business days of receipt of the invoice or resolution of any dispute. If the deposit exceeds the invoiced costs, the utility will return such excess within 20 business days of the date of the invoice without interest.

*c.* Within 30 business days following receipt of the deposit for a supplemental review, the utility shall:

- (1) Perform a supplemental review using the screens set forth below;
- (2) Notify the applicant in writing of the results; and
- (3) Include with the notification copies of the analysis and data underlying the utility's determinations based on the screens.

*d.* Unless the applicant provided instructions on how to respond to the failure of any of the supplemental review screens identified below at the time the applicant accepted the offer of a supplemental review, the utility shall notify the applicant following the failure of any of the screens; or if the utility is unable to perform the screen described in subparagraph 45.9(6) "d"(1) within 2 business days of making such determination, the utility shall obtain the applicant's permission to: (a) continue evaluating the proposed interconnection under this subparagraph; (b) terminate the supplemental review and continue evaluating the small generating facility; or (c) terminate the supplemental review upon withdrawal of the interconnection request by the applicant.

(1) Minimum Load Screen: Where 12 months of line section minimum load data (including onsite load but not station service load served by the proposed small generating facility) are available, can be calculated, can be estimated from existing data, or can be determined from a power flow model, the aggregate generating facility capacity on the line section must be less than 100 percent of the minimum load for all line sections bounded by automatic sectionalizing devices upstream of the proposed small generating facility. If minimum load data is not available, or cannot be calculated, estimated or determined, the utility shall include the reason(s) that it is unable to calculate, estimate or determine minimum load in its supplemental review results notification under paragraph 45.9(6) "c" above.

1. The type of generation used by the proposed small generating facility will be taken into account when calculating, estimating, or determining circuit or line section minimum load relevant for the application of screen. Solar photovoltaic (PV) generation systems with no battery storage use daytime minimum load (i.e., 10 a.m. to 4 p.m. for fixed panel systems and 8 a.m. to 6 p.m. for PV systems utilizing tracking systems), while all other types of generation use absolute minimum load.

2. When this screen is being applied to a small generating facility that serves some station service load, only the net injection into the utility's electric system will be considered as part of the aggregate generation.

3. Utility will not consider generating facility capacity known to be already reflected in the minimum load data as part of the aggregate generation for purposes of this screen.

(2) Voltage and Power Quality Screen: In aggregate with existing generation on the line section: (1) the voltage regulation on the line section can be maintained in compliance with relevant requirements under all system conditions; (2) the voltage fluctuation is within acceptable limits as defined by the Institute of Electrical and Electronics Engineers (IEEE) Standard 1453, or utility practice similar to IEEE Standard 1453; and (3) the harmonic levels meet IEEE Standard 519 limits.

(3) **Safety and Reliability Screen:** The location of the proposed small generating facility and the aggregate generation capacity on the line section do not create impacts to safety or reliability that cannot be adequately addressed without application of the study process. The utility shall give due consideration to the following and other factors in determining potential impacts to safety and reliability in applying this screen.

1. Whether the line section has significant minimum load levels dominated by a small number of customers (e.g., several large commercial customers).

2. Whether the load along the line section is uniform or even.

3. Whether the proposed small generating facility is located in close proximity to the substation (i.e., less than 2.5 electrical circuit miles) and whether the line section from the substation to the point of interconnection is a mainline rated for normal and emergency ampacity.

4. Whether the proposed small generating facility incorporates a time delay function to prevent reconnection of the generator to the system until system voltage and frequency are within normal limits for a prescribed time.

5. Whether operational flexibility is reduced by the proposed small generating facility, such that transfer of the line section(s) of the small generating facility to a neighboring distribution circuit/substation may trigger overloads or voltage issues.

6. Whether the proposed small generating facility employs equipment or systems certified by a recognized standards organization to address technical issues such as, but not limited to, islanding, reverse power flow, or voltage quality.

*e.* If the proposed interconnection passes the supplemental screens described in subparagraphs 45.9(6) “*d*”(1), (2), and (3), the interconnection request shall be approved and the utility will provide the applicant with an executable interconnection agreement within the time frames established in paragraphs 45.9(6) “*f*” and “*g*.” If the proposed interconnection fails any of the supplemental review screens and the applicant does not withdraw its interconnection request, it shall continue to be evaluated under the Level 4 study process consistent with rule 199—45.11(476).

*f.* If the proposed interconnection passes the supplemental screens described in subparagraphs 45.9(6) “*d*”(1), (2), and (3) and does not require construction of facilities by the utility on its own system, the interconnection agreement shall be provided within 10 business days after the notification of the supplemental review results.

*g.* If interconnection facilities or minor modifications to the utility’s system are required for the proposed interconnection to pass the supplemental screens described in subparagraphs 45.9(6) “*d*”(1), (2), and (3) and the applicant agrees to pay for the modifications to the utility’s electric system, the interconnection agreement, along with a nonbinding good-faith estimate for the interconnection facilities or minor modifications or both, shall be provided to the applicant within 15 business days after receiving written notification of the supplemental review results.

*h.* If the proposed interconnection would require more than interconnection facilities or minor modifications to the utility’s system to pass the supplemental screens described in subparagraphs 45.9(6) “*d*”(1), (2), and (3), the utility shall notify the applicant at the same time it notifies the applicant with the supplemental review results, that the interconnection request shall be evaluated under the Level 4 study process unless the applicant withdraws its small generating facility.

**45.9(7)** If the distributed generation facility is not approved under a Level 2 review, the utility shall provide the applicant with written notification explaining its reasons for denying the interconnection request. The applicant may submit a new interconnection request for consideration under a Level 4 interconnection review. The review order position assigned to the Level 2 interconnection request shall be retained, provided that the request is made by the applicant within 15 business days after notification that the current interconnection request is denied.

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